OUR FUTURE CITIES

With scarcity of land, increasing population and urgent need to preserve the eco-system, we are left with no other choice but to re-think and adopt to the concept of "Concept Buildings" sooner than we thought we would.

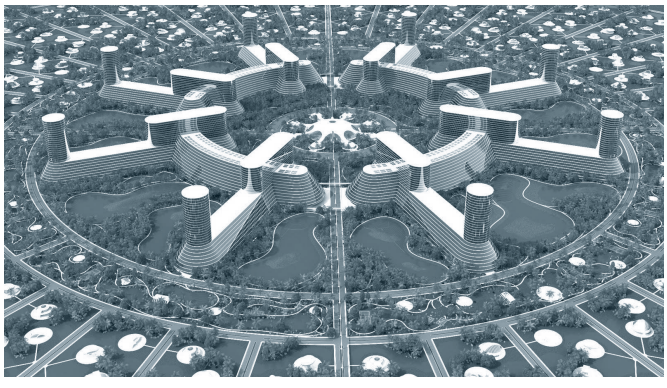
Aniket Pradhan

Concepts buildings, eco-friendly homes, energy saving building concepts, passive houses, zero energy buildings, energy plus houses are no longer just concepts but fast they are becoming a reality and they are here sooner than they were expected.

As more and more homeowners and builders are becoming aware about protecting our environment, the green building concept developers, builders, designers and architects are now incorporating green elements in every building that is built. With the advancement in technology and the emergence of modern building concepts, homeowners can now integrate these green elements without sacrificing the overall appeal of their dream homes.

But all these eco-friendly concepts and energy saving measures can only be incorporated if we have spaces to build building, and as they say "they don't make lands anymore" the biggest challenge is efficient use of spaces and there are little options left other than to look skywards or take help from the vast water bodies, that is the sea. Let's look what are different concepts building they are making.

The Venus Project, Venus, Florida



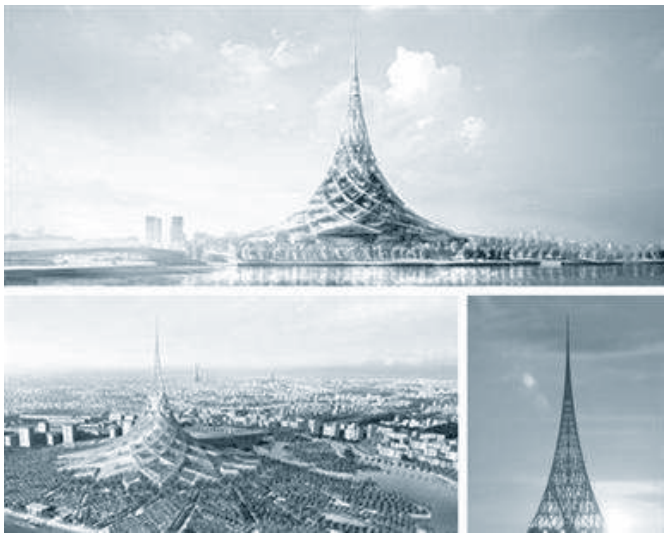
Maybe this is the best known future city concept. The goal of The Venus Project is to restructure the world into green-thinking and energy-sustainable place. It is based on the philosophy that technology will improve better if people are not so profit-minded. To prove it to the world, a group led by ideologist Jacques Fresco built research center in Venus, Florida, where new technologies are being developed. Cities would be based on the land, under the sea and above the sea. People, according to this concept, would live in very high skyscrapers, constructed entirely of reinforced and pre-stressed concrete, steel and glass, and stabilized against earthquakes. These super-size skyscrapers will assure that more land will be available for parks and wilderness preserves, while concurrently helping to eliminate urban sprawl. Each one of these towers will be a total enclosure system containing a shopping center, as well as childcare, educational, health and recreational facilities. This will help alleviate the need to travel to outside facilities.

Sky-Terra, Tokyo

A designer from San Francisco Joanna Borek-Clement created this project of cities in the sky inspired by the neuron cells. Unlike the others which include great skyscrapers blocking the sun, these interconnected giant building would keep the sunlight out. The towers should reduce the urban heat island effect. Rainwater will be used for landscaping needs. The towers will be built from modular parts to conserve resources and energy. The transportation system consists of interconnected footpaths and also bike paths and electric car paths. Getting to the city will be done by elevator. The Sky-Terra towers offer many options from public parks, greenbelts, playing fields, jogging paths, amphitheaters, pools or bath houses – all with the aim of providing people with access to open space.

Ultima Tower, San Francisco

Ultima Tower is future city concept designed by Eugene Tsui. It is designed to solve the problem with world population crisis. Conceptualized as human termite nest, these two miles green towers could house over one million people in the area of only one mile. It is shaped like a cone and would be



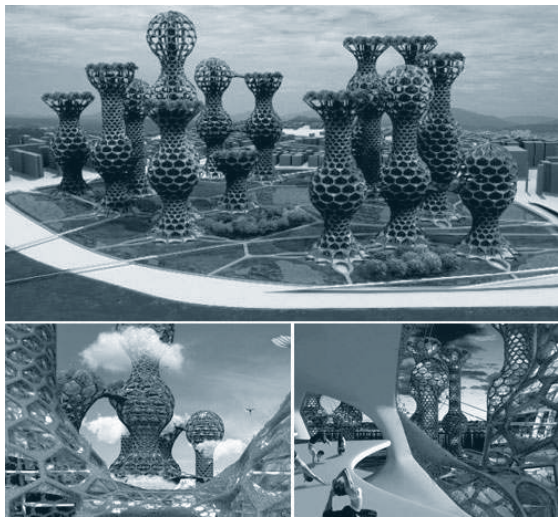
able to fit full ecosystem of hills, ravines, lakes and rivers. The lakes would have sandy beaches, grass, trees and rocky islands. It is imagined as if nature grew upwards with multi-soil levels. In the tower, there will be residential, office, commercial, retail and entertainment objects. Ecological efficiency is a rule. The building will recycle goods and will use only eco friendly materials. Cars will not be let in and only electric automobiles, hybrid cars and bicycles would be allowed.

Crystal Island, Moscow

This 450 meters tall self-contained city designed by Foster + Partners. It can accommodate 30,000 residents in 900 apartments, but will also boast hotel rooms, cinema, theatre, museum, sports fields, shopping malls and school for 500 students. This project was already granted preliminary planning permission for construction on Nagatino Peninsula, just 4.5 miles from the Kremlin. The mega structure would form an amazing "second skin" and thermal buffer for the main building, shielding the interior spaces from Moscow's weather. This second skin will be sealed in winter to minimize heat loss, and opened in the summer to naturally cool the interior. The building would be powered by built-in solar panels and wind turbines. The site would also feature on-site renewable and low-carbon energy generation. This project was delayed in 2009 because of the global financial crisis.

Seoul Commune 2026

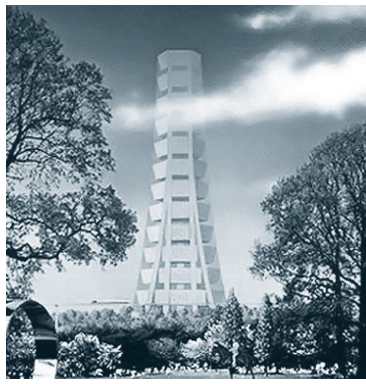
The project by the Korea-based firm Mass Studies came as a response to Korea's rapid technological and architectural development, which the designers describe as 'anarchical.'



Covering 393,400 square miles, 15 towers of varying height- from 16 to 53 floors- function like one giant house in this park. It consists of two very contrasting elements: the park represents a public space, while the rising towers are an accumulation of individual dwelling units and demarcated private space. The Seoul 2026 proposal offers a fully functional community development that is efficient, high-tech and immensely sustainable. The buildings are being designed to use lattice-like geometric shapes to allow airflow as well as maximum strength while using a minimum of materials. They will be covered in plants. The towers' internal functions are separated into public, private, and commercial, offering exclusively private rooms called "cells" and communal spaces for public activity. Members of the commune may range from permanent residents to nomadic short-term lodgers. Seoul Commune 2026 suggests a minimized private space consisting of a bedroom and a bathroom in several spatial variations. Six elevators and six shaft spaces will be used for transportation. The bases of all 15 towers offer programs for sports and leisure, educational facilities, a convention hall, conference spaces, cultural facilities and supporting commercial facilities.

Sky City 1000, Tokyo

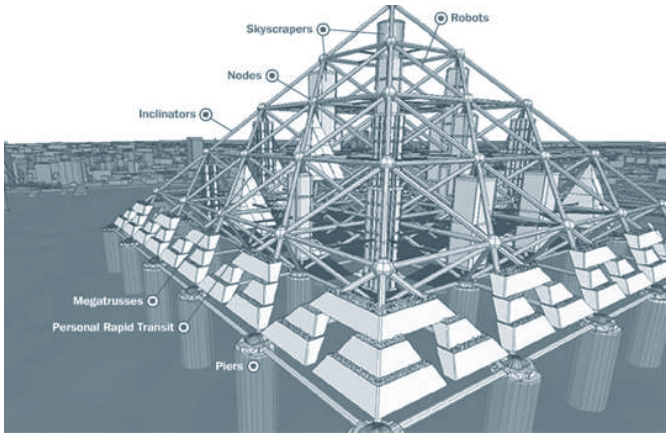
The project proposed by Takenaka Corporation in 1989 is another one which would be set to solve population crisis and lack of green space. It would house about 35,000 residents and 100,000 workers. It will be 1000 meters high and comprises 14 concave dish-shaped "Space Plateaus" stacked one upon the other. The interior of the plateaus would contain green space, and on the edges, on the sides of the building, would be the apartments. Also included in the building would be offices, commercial facilities, schools, theaters and other modern amenities. People would move with triple-deck high-speed elevators from floor to the top in less than two minutes. Each plateau will also have a monorail system which will help move people laterally. Authorities in Tokyo take this project very seriously; Sky City 1000 could be first realized future city concept.



Bionic Tower, Hong Kong/Shanghai

The Bionic Tower is project designed by Spanish architects Eloy Celaya, Rosa Cervera and Javier Gomez. It is a proposed vertical city, an extremely large building purposed for human habitation of over 100,000 people. It would be built on completely artificial island of 0.4 square miles connected to the mainland. It would cost about 15 billion dollars. Until now, the cities of Shanghai and Hong Kong have shown interest for this project.

X-Seed 4000, Tokyo



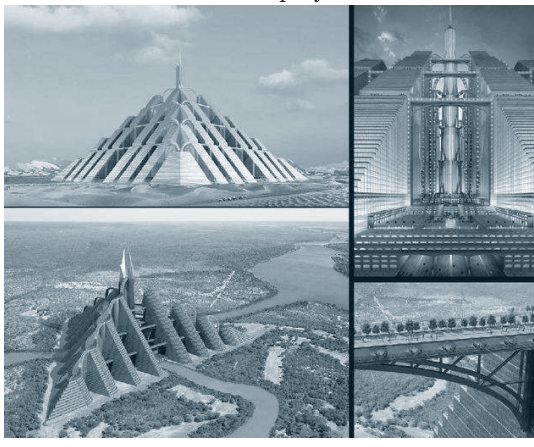
Although only an architectural dream. Created and developed by Peter Neville, and designed by Taisei Corporation, the 800 floors building would be 4 km high and 6 km wide, able to accommodate 500,000 to 1,000,000 people. It could eclipse even Mount Fuji, whose iconic shape has been attributed by the architects as their inspiration. X-Seed 4000 would be powered entirely by the sun, although it is unclear whether this would involve covering the facade with photovoltaic panels or next generation thin film solar panels. The interior of the building does appear to adhere to the Soleri's ideology of humans in coexistence with nature.

Shimizu TRY 2004 Mega-City Pyramid, Shimizu

If built, Shimizu TRY mega-City Pyramid would be the largest man-made structure in world's history; 730 meters high and 12 times higher than Great Pyramid in Giza in Egypt. Designed to accommodate 750,000 people, or 1/16 of Tokyo's population, this building would help solving the problem of lack in space in Tokyo, knowing the fact that it takes space of only 1/47 of metropolis' area. The proposed structure is so large that it cannot be built with currently available materials, due to their weight. The design relies on the future availability of super strong lightweight materials based on carbon nanotubes. This pyramid city would be composed by 5 stacked trusses, each with similar dimensions to that of the great pyramid of Giza. It will use only renewable energy, mostly of the sea, the sun and the wind. For interior transport would be used accelerating walkways, inclined elevators, and a personal rapid transit system where automated pods would travel within the trusses. According to Discovery Channel's documentary on the pyramid, it would be complete within the year 2110.

Ziggurat Dubai Carbon Neutral Pyramid, Dubai

We can't talk about Future City Concept if we don't mention Dubai. The Ziggurat Dubai Carbon Neutral Pyramid is designed to house incredible number of 1 million residents, covering 2.3 square kilometers. This giant eco building was unveiled at Dubai Cityscape Event in 2008 and attracted a lot of attention by expert of the architecture, who were sure that project could be incorporated into grander plans, meaning that it may not be a one-off structure. The project was undertaken by Dubai based environmental design company Timelinks. The city will use natural renewable energy resources of solar, wind and steam making it completely self-sustainable in energetic terms and supported by a carbon neutral system producing zero carbon dioxide emissions. Ziggurat communities can be almost totally self-sufficient energy-wise. Apart from using steam power in the building, we will also employ wind turbine technology to harness natural energy resources. Whole cities can be accommodated in complexes, which take up less than 10% of the original land surface. Public and private landscaping will be used for leisure pursuits or irrigated as agricultural land. The transportation network will make cars redundant and will have a plenty of green spaces for recreation and agriculture.



Looking at current trends, development of new technologies and the urgency and need to preserve fast depleting resources, these concepts building are fast becoming a reality. The next 5-10 years will showcase and decide the dwellings we will live in. It is a sure fact that in very near future we definitely will be seeing this kind of concept building becoming a reality. In fact, we are not left with any other choice.